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ABSTRACT

This document contains three papers presented at a symposium on university instruction in human resource development (HRD) moderated by Janice Black at the 1996 conference of the Academy of Human Resource Development (AHRD). "Facilitating Transfer of Learning from the Classroom to the Workplace" (Brenda S. Gardner, Sharon J. Korth) examines a formal educational program that uses David Kolb's experiential learning cycle as a theoretical framework for teaching students about group and team development and helping them transfer their learning to workplace activities. "Team Teaching HRD as a Mentoring Tool" (Timothy G. Hatcher, Barbara E. Hinton) discusses a study in which they examined instructors' perceptions regarding team teaching in a graduate-level course in HRD. "Evaluation Research for the Development of Effective Practice in the Video-Teleconferencing Distance Education Human Resource Development Classroom" (John A. Niemi, Kevin Owens) presents data from student journals, course evaluations, and site coordinator findings regarding the effectiveness of a graduate-level class in HRD that was delivered via video-teleconference distance education. (MN)

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SYMPOSIUM
[27] UNIVERSITY INSTRUCTION IN HRD

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Facilitating Transfer of Learning from the Classroom to the Workplace
Brenda S. Gardner, Xavier University
Sharon J. Korth, Xavier University

Team Teaching HRD as a Mentoring Tool
Timothy G. Hatcher, University of Arkansas
Barbara E. Hinton, University of Arkansas

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Facilitating Transfer of Learning from the Classroom to the Workplace

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Organizations have frequently expressed the need for employees who can learn and work effectively in a team environment. This article discusses a formal educational program which has responded to this challenge. This program used David Kolb's experiential learning cycle as the theoretical framework by which students could learn about group and team development experientially and more effectively transfer their learning to workplace activities. Implications for human resource development training programs and academic programs are examined.

Human resource development (HRD) can be characterized as having three elements: career development, organization development, and training and development (McLagan, 1989). Training and development may refer to not only formal and informal learning that takes place within the workplace, but may also refer to the formal educational processes that help prepare individuals to enter these workplaces as highly skilled professionals. However, many academic programs are perceived to be out of touch with their customers--their students and the companies that hire them (Foggin, 1992). In addition, one of the challenges facing the HRD profession is to ensure that training programs are strategically aligned with business needs and goals, and not just implemented in a pro forma, non-evaluative fashion. The heart of most jobs is teamwork (Johnson, Johnson, & Smith, 1991) and businesses want employees with "people skills," who can be effective team members and team leaders (Jenkins, 1992). Educational programs in business, in particular, have been criticized for emphasizing theory over practice (Raelin, 1993) when training their students.

Senge (1990) in his book, *The Fifth Discipline,* looks at businesses as learning organizations, where learning is valued as the best, and perhaps the only, source of competitive advantage. Senge supports the importance of teams in the workplace, stating that mastering team learning is vital to creating the learning organization because "teams, not individuals, are the fundamental learning unit in modern organizations. This is where the 'rubber meets the road'; unless the team can learn, the organization cannot learn" (p. 10).

Academic programs and human resource departments are responding to these business needs in many ways. In this article the authors will describe one program's response to the needs expressed by business: to have employees who have been able to transfer their formal learning to a business environment and who can learn and work effectively in a team environment.

Problem Statement

In order to address this problem of transfer of learning from a formal classroom or training environment to the workplace, the researchers' challenge was to design appropriate learning techniques that would ensure that learning that occurs in the classroom related to group and team development will transfer to a workplace which utilizes such teams to accomplish their goals. In effect, the researchers saw a strong need to integrate theories of group dynamics and development with the practice of working in, leading or facilitating teams in the workplace.

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Background

In order to prepare graduates who are better equipped to respond to these business needs for learning how to learn and team skills, an executive weekend format for a master of education degree in human resource development (HRD) was implemented in 1992 at Xavier University in Cincinnati, Ohio, USA, a private Jesuit institution. The program has integrated several unique elements to develop ethical HRD professionals who work in the fields of training and development, organization development, and career development: A cohort group of 40 working adults who remain together in "lock-step" fashion over 21 months, and a coordinated 11-course curriculum whose elements build upon each other and overlap in terms of reinforcing previously learned skills through shared assignments and group activities..

The program's format (24 intensive weekends over 21 months) allow for issues and skills to be explored in depth, with time for development, practice, feedback, reflection, and reinforcement. The cohort feature allows for the development of a community of learners who work together toward a common academic goal and allows for personal as well as professional growth.

Theoretical Framework

The theoretical framework for this study includes David Kolb's experiential learning cycle, transfer of learning models, reflection as a means of linking theory and practice, and team learning theory. The integration of these perspectives provides a foundation for the design of coursework in an educational program that leads to the transfer of learning to the workplace.

Experiential Learning Theory Kolb's experiential learning cycle (1984) serves as the centerpiece for the design of the coursework in this program. Students take Kolb's instrument (Learning Style Inventory--LSI) as a self-awareness exercise, participate in various experiential learning activities which follow Kolb's model, and write an ongoing learning journal using his learning process. The cycle also serves as a macro model for the transfer of learning to the workplace and provides the opportunity for connections to be made between personal and professional life experiences.

The core of the theory is a simple description of the learning cycle - how reflection is used to help translate experience into concepts which, in turn, are used as guides in the choice of new experiences (Smith & Kolb, 1986). According to the theory, learning takes place in all human settings; it is the method we use to adapt to and cope with our world. The experiential learning model provides a framework that helps develop the critical linkages among education, work, and personal development (Kolb, 1984). Kolb believes that learners need abilities in four areas to be effective:

> They must be able to involve themselves fully, openly and without bias in new experiences (Concrete Experience--CE). They must be able to reflect on and observe these experiences from many perspectives (Reflective Observation--RO); to create concepts that integrate their observations into logically sound theories (Abstract Conceptualization--AC); and to use these theories to make decisions and solve problems (Active Experimentation--AE) (Smith & Kolb, 1986, p. 12).

A truly effective learner is able to rely flexibly on these four learning modes in whatever combinations the situation requires. However, people have preferred learning styles, and when they have information about their preferred learning modes, they are better able to understand their learning strengths as well as potential barriers to effective growth. The experiential learning cycle itself implies that experience is the springboard for new learning. The last phase of Kolb's cycle, active experimentation, involves developing a plan for the application of these learnings in novel situations.

Transfer of Learning Models have been developed that offer a framework for enhancing on-the-job application of skills and knowledge that have been acquired during a training program

(Broad & Newstrom, 1992; Milheim, 1994). These models suggest activities that should occur before, during, and after the training event as well as roles and responsibilities for trainers, trainees, trainees' managers, and trainees' co-workers. Most of the strategies used before and after the training focus on establishing an environment that supports the use of the new skills on the job. Although there are limitations in creating that environment in training and educational situations where the participants come from different organizations, many of the transfer strategies can still apply.

Strategies to be implemented *prior to training* include: aligning the program with the organization's strategic plan, systematically designing the instruction, building in time for practice opportunities during the training, developing trainee readiness, and designing a peer coaching component for the program and its follow-up activities (Broad & Newstrom, 1992).

One recommended strategy to be implemented *during the learning event* is to have the participants develop an action plan which includes the steps to be carried out at the worksite to apply the new concepts and skills (Broad & Newstrom, 1992; Milheim, 1994; Parry, 1990). Broad and Newstrom (1992) also suggest providing opportunities for the development of support groups as another approach. Tallman and Holt (1987) propose that specific time be allotted for discussion of application strategies as well as time for reflection, synthesis, and/or integration of new material. Further, the instructor's use of many different examples, as well as providing learners with information about the general principles and theories behind their learned skills, can help increase training transfer by presenting various contexts in which trainees can expect to use the skills and knowledge used in training (Garavaglia, 1993).

Post-training strategies include the provision of job aids to be used at the worksite (Broad & Newstrom, 1992; Parry, 1990). Additionally, trainees can facilitate their own transfer by applying their new skills as soon as possible (Kemerer, 1991) and maintaining contact with training buddies (Broad & Newstrom, 1992). Follow-up communication and follow-up sessions can also help by providing an opportunity for support networks.

Another area of study that provides information about the transfer of learning is "application work" conducted during group dynamics instruction. According to Thomas (1990), the explicit aim of application work is to facilitate the transfer of learning to the back-home environment. He suggests that application work is most effective when integrated throughout the course rather than left until the end, as is common practice. He explains how abstract conceptualization and active experimentation are critical phases for application work and proposes that instructors can enhance the application work by helping students answer what was learned about themselves and what was learned that is generalizable to other contexts and contingencies.

Another avenue for facilitating transfer is to make the most of both on-line and off-line learning experiences (Gillette, 1990). According to Thomas (1990), "on-line learning occurs in the context of the experiential learning group, while off-line learning occurs during activities that are part of the instruction, but not in the experiential group, and also when the individual is outside the boundaries of the course" (p. 166). Thus, the instructor can provide for explicit application work in off-line learning experiences, but must make sure that they are carefully connected to the on-line group experiences. For example, students can be asked to do reflective work in the form of written assignments that can facilitate application work and also shape the nature of what is brought to the on-line experience.

Reflection Whereas the transfer concept draws heavily on Kolb's abstract conceptualization and active experimentation phases, the reflection phase is also critical in the full cycle of learning from experience. Schon (1983) developed the concept of reflective practice, which has a historical foundation in the learning models of Dewey, Lewin, and Piaget, each of whom espoused that learning involves the integration of experience with reflection as well as the integration of theory with practice. Although each contended that experience is the basis for learning, they also maintained that learning cannot take place without reflection. Reflection is one of the ways we make meaning and sense of our own performance; without reflection, we cannot revise our theories of action, and learning will not occur until new concepts, ideas, or theories of action begin to influence our behavior.

Journal writing is widely cited as a mechanism for facilitating reflection and learning (Kottkamp, 1990; McAlpine, 1993; Meyers & Jones, 1992). McAlpine (1993) discusses journal writing as a learning tool that links theory and practice. Through the description of the experience and the expression of thoughts and feelings, the writer gains an explicit understanding of what has been learned. Shulman, McCormack, Luechauer, and Shulman (1993) describe a journal assignment which begins with observation and description, follows with conceptual linkage, and culminates with conceptual insight, fostering a sense of forward thinking. They explain how the journal-writing process increases students' feelings of ownership, self-efficacy, and motivation and how students can become empowered to be responsible for their own learning.

Team Learning The practice of critical self-reflection and the willingness to question and scrutinize current ways of doing and thinking are closely related to team and organizational effectiveness. Organizational studies in a variety of contexts conclude that the most innovative and productive organizations encourage employees to scrutinize organizational behavior, to challenge existing practices, and to continually look for better ways of doing things (Brookfield, 1987). These ideas are also congruent with Senge's (1990) discipline of organizational learning.

According to Senge, Kleiner, Roberts, Ross, and Smith (1994), teams can follow a learning cycle that parallels Kolb's model. The team learning model involves coordinated action (Concrete Experience), public reflection (Reflective Observation), developing shared meaning (Abstract Conceptualization), and conducting joint planning (Active Experimentation). Once individuals become familiar with Kolb's cycle on an individual level, they can apply it in groups. Providing students with opportunities to understand and practice team learning in an educational setting will facilitate their application of the model in a work setting.

For many years, educational settings have been using team learning approaches similar to those being proposed by business. Cooperative learning is a systematic instructional technique in which students work together in small groups toward a common goal. Researchers have documented the effectiveness of cooperative learning methods (Slavin, 1990; Totten, Sills, Digby, & Russ, 1991), however much of the research has been conducted at the precollegiate level.

The use of cooperative learning groups not only enhances the learning process but also gives students practice using a team learning model. These experiences then become the foundation for learnings that can be applied in new situations. Therefore, the use of cooperative learning groups in conjunction with Kolb's experiential learning model enhances the learning process, reinforces the link between theory and practice, and facilitates the transfer of learning to the workplace.

Research Design & Methods

Theories on educational instructional design, adult learning, organization behavior, and psychological dynamics of groups were all examined to determine how integrating theory and practice could be accomplished within the parameters and guidelines of a graduate degree program. In particular, attention was paid to research reported in teaching, management, psychology, human resource development, and adult education journals. After a review of such scholarly journals was completed, practitioner journals in the field were also studied to determine relevance of current activities in the field to the theoretical foundations for this program.

It was decided to use experiential learning theory as the most appropriate and theoretically sound framework to design this research into transfer of learning. In order to provide learners with a *Concrete Experience (CE)*, the researchers formed the students into groups of up to 7 learners each, based upon diversity of work responsibilities, experience level, gender and ethnicity. These learning groups, similar to work teams, have projects to accomplish within specific deadlines. They stay together for these projects for one academic year and do not have options to transfer to another group. For the HRD assignments related to the group, they have a group presentation/training presentation and group paper. Students receive group grades for these assignments, and extensive oral and written feedback is provided to the groups by faculty and

fellow students. In-class activities are also designed to provide situations in which the learning groups participate in problem-solving, planning, decision-making, and team development exercises. These, therefore, all become a backdrop on which to apply the remaining phases of the experiential learning cycle.

At this point in the experiential learning cycle, the process of *Reflective Observation (RO)* is encouraged through the requirement of other individual and group assignments. Each student must maintain a learning journal throughout their group experience which is reviewed by professors to ensure that the student is actively engaged in the process of reflection on their group and work experiences. Each student must also prepare an individual analysis where they reflect on their own behavior in their learning group and the learning that has resulted. This reflective essay is used to integrate their formal learning about individual and group behavior; discussion about their own behavior and its effect on others, as well as the effect of team members' behavior on them, is a main focus of the assignment.

In addition, each learning group must prepare a written group analysis, which is a detailed reflection and examination of the group's growth and development over the school year. This paper also receives a group grade and is designed to help the students learn more about how groups work and their own behavior in groups.

These three assignments (learning journal, individual analysis, and group analysis) are designed to foster an environment which encourages reflection as a way of life--throughout the students' lives. They are also the means by which the curriculum comes "alive" and help students link what they are learning "in theory" with what they actually do on the job.

The process of *Abstract Conceptualization (AC)* at this point in the experiential learning cycle is where the issue of transfer of learning begins to be directly addressed. Each of the individual and group assignments has components where the learners integrate and compare their reflections on their own individual and group development with formal group and organization development theories and concepts discussed in class. Having reflected on how their learning groups progressed throughout the year, the students make connections to group development theories they have read about and studied and are able to extrapolate and generalize how work teams in organizations may progress, or be deterred, in working toward their goals. Having reflected also on their own behavior in the learning groups, they are better able to understand leadership theories and make generalizations to facilitating and leading work teams in their organizations. Finally in this phase of the experiential learning cycle, students generalize from this experience in using learning groups to adult learning theories which helps them design HRD curriculum and programs.

Having generalized from their reflections on their learning to theories about learning, group development, and leadership, the students enter the last phase of the learning cycle, *Active Experimentation (AE)*, ready to plan their systematic transfer of the learning to the workplace. Although the learners have made many changes in their personal or work behaviors throughout the year as a result of processing many of their concrete experiences with the experiential learning cycle, the end of the learning group experience provides a rich opportunity for the students on a macro level to transfer their learning to the workplace. They have reflected on their individual and group behavior and are more able to see the connections between classroom and work behavior; they've received feedback from fellow students and faculty on these behaviors; they now spend time in their individual analyses and journals action planning about their futures--what opportunities they have, or could find, to practice leadership or facilitation skills, design training which follows adult learning principles, or more effectively lead or participate in groups. The ending of this cycle is the key to more informed practice--the key to transferring their learning to the workplace.

Besides the use of Kolb's cycle as a macro framework for learning from experience, specific strategies were employed throughout the program to aid in the process of transferring learning to the workplace. In designing the program *before the program began*, faculty researched current issues in the workplace so that the program's focus could help address these business needs, used a systematic design process and built in practice opportunities, as well as a peer coaching

component. *During the program*, faculty used active learning techniques, provided examples of work and HRD situations, integrated application work throughout the various courses, facilitated discussions about application strategies and action planning, and helped develop support groups among the students. *During the second year of the program*, after the small group had been completed, faculty encouraged students to use their books and handouts as references and job aids, to apply their skills on the job as soon as possible, to partner with other students on projects, and to share their application experiences with faculty and students to take advantage of a learning support group.

Results

Encouraging and facilitating reflection in learning groups, as well as utilizing specific transfer of learning strategies, has allowed students to take responsibility for applying what they learn in the classroom to their learning groups and ultimately to their on-the-job behavior. Many students have also found that the process helps them to apply classroom group learning to their social interactions.

Although some students balk at putting their thought processes into words, the process "forces" them to consciously consider their own and others' behaviors and how they relate to academic theories and on-the-job relevance. Whereas the journal assignment allows students to track their learning process over time, writing the group and individual analysis papers helps the students reach closure at the end of their year-long experience and specifically apply their learning to their work situations.

In the Xavier program, students systematically provide extensive written and oral feedback to faculty throughout the year. Overall, the informal and formal systems for course evaluation have provided faculty with positive feedback on both the group and individual reflection assignments, as well as the methods for grading them.

It is difficult, of course, for academic programs to report actual transfer of learning to the workplace other than through self-reports by the students on application of their learning. Because this program's faculty continue to work with all the students in other courses for another year after the small group experience has ended, they do, however, get the opportunity to receive feedback on the learners' progress or difficulties in transferring their learning to the workplace. Many of their comments about application issues are directed toward some of their organizations' practices of having the supervisor be the "leader" of the work team, which creates other dynamics not necessarily present in their academic small groups.

Faculty also provided options for students to group with other students on other assignments throughout the second, final year in the program. Regardless of the nature and format of these projects, all students prepare, again, individual analyses of their learning and applications to the workplace as an addendum to the assignment. In this way, the experiential learning cycle is reinforced so that moving through the cycle becomes easier and more likely to be practiced once the program is over. As a result, therefore, not only do students receive a practical application of their learning to the workplace, they also develop the skills to practice "learning how to learn" while they are working on their career outside of the classroom. Perhaps this could be termed the most important and crucial learning of all.

Implications

Research on transferring learning from a formal educational environment to the workplace will continue to be a worthy task, especially as the world of work is changing so rapidly in today's global economy. Research on what skills are necessary to create and sustain a learning organization will continue to be explored, as well as the resultant effects for academic programs preparing the workers for such an environment.

There are a number of specific research questions resulting from this project:

- Are groups that are learning team development skills in a "stranger" group (a group with learners who are not from the same organization) more or less effective than those trained as an "intact" work team (an existing work team in an organization)?
- With movement toward "virtual" classrooms via distance education technology, what techniques to teach group development skills could, or should be, utilized?
- Many HRD courses only have a few months to teach team development skills; can generalizations be made from short-term training programs in organizations to academic settings?

This research also has implications for HRD academic programs elsewhere. Although using these tools for reflection can result in more intense in-depth analysis with groups that have a longer lifespan, the types of issues and learning will occur, however, in a semester-long course as well. The dynamics present in a group of adults that knows each of the members will have to continue in the same classes together for a year after their group experience is complete may be very different than a traditional program; motivation, dedication, and commitment to the group process and nature of the assignments may be heightened by the cohort program.

Programs that have cohorts of majors or an extensive common core curriculum, even though the students may not take all their classes together, could also benefit from this approach. Courses or seminars that orient students to undergraduate or graduate study may be good places to employ these techniques as well. Courses designed to facilitate personal and professional reflection and growth (including internships and cooperative assignments), as well as those highlighting interpersonal communication skills, conflict management, business problem-solving, learning theory, teacher or adult education, or team dynamics could also apply these reflection tools. Undergraduate and graduate programs using an intensive, accelerated weekend format, which are being increasingly initiated for non-traditional students, may be suitable forums for experimenting with these group and individual reflection assignments.

Perhaps, however, the major implication and questions for future research lie with HRD programs in the workplace. Academic programs typically involve teaching students from different organizations, with different experiences, goals and interests; they provide many opportunities for students to indulge in "divergent thinking" and take risks. Training programs in the workplace, however, generally "mandate" attendance and are seldom opportunities for trainees to experiment fully with changes in their viewpoints and behaviors. Questions regarding the value of learning if such learning will not be supported by management back on the job, are many. Difficulties in transferring learning from an academic program to the workplace are as common as the difficulty of transferring learning from a training room to an office 50 feet away.

Conclusions

Transferring learning to the workplace from either a formal educational program or a training program in an organization is a challenge that must be addressed in light of a rapidly changing work environment. This article examined research into ensuring that learning about groups and team development can be applied in a workplace that is either using groups currently to accomplish many of their goals or is contemplating such a move. Using David Kolb's experiential learning cycle as the theoretical framework, an academic program attempted to provide students with the opportunity to process their year-long small group experience so that they could assertively address team development activities in their workplace. Responding to businesses' needs for employees who can quickly and effectively adapt to changes in their work environment is a mandate for all educators and human resource development professionals worldwide.

References

Broad, M., & Newstrom, J. W. (1992). Transfer of training: Action-packed strategies to ensure high payoff from training investments. Reading, MA: Addison-Wesley.

Brookfield, S. D. (1987). Developing critical thinkers: Challenging adults to explore alternative ways of thinking and acting. San Francisco: Jossey-Bass.

Foggin, J. H. (1992). Meeting customer needs. Survey of Business, 23(1), 6-9.

Garavaglia, P. L. (1993). How to ensure transfer of training. Training & Development, 47(10), 63-68.

Gillette, J. (1990). Toward a practice of learning. In J. Gillette & M. McCollom (Eds.), Groups in context: A new perspective on group dynamics (pp. 15-33). Reading, MA: Addison-Wesley.

Jenkins, R. L. (1992). A new era in MBA education: Tennessee's leadership role. Survey of Business, 28(1), 2.

Johnson, D. W., Johnson, R. T., & Smith, K. A. (1991). Active learning: Cooperation in the college classroom. Edina, MN: Interaction Book.

Kemerer, R. W. (1991). Understanding the application of learning. New Directions for Adult and Continuing Education, (49), 67-80.

Kolb, D. A. (1984). Experiential learning. Englewood Cliffs, NJ: Prentice-Hall.

Kottkamp, R. B. (1990). Means for facilitating reflection. Education and the Urban Society, 22(2), 182-203.

McAlpine, L. (1993). Learner narrative as an instructional device: Developing professional conversations. Journal on Excellence in College Teaching, 4, 79-87.

McLagan, P. A. (1989). Models for HRD practice: The models. Alexandria, VA: American Society for Training and Development.

Meyers, C., & Jones, T. B. (1993). Promoting active learning: Strategies for the college classroom. San Francisco: Jossey-Bass.

Milheim, W. D. (1994). A comprehensive model for the transfer of training. Performance Improvement Quarterly, 7(2), 95-114.

Parry, S. (1990). But will they use it? Training & Development, 44(12), 15-17.

Raelin, J. A. (1993). Theory and practice: Their roles, relationship, and limitations in advanced management education. Business Horizons, 36(3), 85-89.

Schon, D. A. (1983). The reflective practitioner: How professionals think in action. New York: Basic Books.

Senge, P. (1990). The fifth discipline: The art and practice of the learning organization. New York: Doubleday.

Senge, P., Kleiner, A., Roberts, C., Ross, R. B., & Smith, B. J. (1994). The fifth discipline fieldbook: Strategies and tools for building a learning organization. New York: Doubleday.

Shulman, G. M., McCormack, A., Luechauer, D. L., & Shulman, C. (1993). Using the journal assignment to create empowered learners: An application of writing across the curriculum. Journal on Excellence in College Teaching, 4, 89-104.

Slavin, R. E. (1990). Cooperative learning: Theory, research, and practice. Needham Heights, MA: Allyn and Bacon.

Smith, D. M., & Kolb, D. A. (1986). User's guide for the learning-style inventory: A manual for teachers and trainers. Boston: McBer & Company.

Tallman, D. E., & Holt, M. E. (1987). Moving learning from workshops to work. Continuing Higher Education Review, 51(1), 15-31.

Thomas, D. A. (1990). Conditions for teaching experiential group dynamics. In J. Gillette & M. McCollom (Eds.), Groups in context: A new perspective on group dynamics (pp. 155-170). Reading, MA: Addison-Wesley.

Totten, S., Sills, T., Digby, A., & Russ, R. (1991). Cooperative learning: A guide to research. New York: Garland.

Wisdom, B. L. (1989). If quality is so important, why don't we teach it? The Organizational Behavior Teaching Review, 2, 68-78.

Team Teaching HRD as a Mentoring Tool

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This study investigated perceptions of instructors toward team-teaching as a mentoring process in a graduate level course in human resource development. A qualification of the elements and conditions that influence the theoretical construct of mentoring are offered.

Any newly hired, tenure-track, assistant professor entering academia is understandably filled with questions of how to make the best of the induction period of an academic career in order to succeed and to prepare for tenure review. The challenge is even more complicated when the assistant professor cannot teach a graduate level course or direct graduate level research until graduate faculty status is awarded. While establishing a record of teaching, research, and service is the primary focus of the assistant professor, the head of the department in which the assistant professor is entering is none the less interested in the success of the new faculty member. Much time, money, and effort have usually been expended by the university to attract the faculty member; it is in the best interest of the department for the faculty member to be successful.

Braskamp and Ory (1994) report that "senior faculty are . . . increasingly being asked to help foster junior faculty members' development rather than let them develop on their own." They indicate that new faculty often have idealistic and unrealistic aspirations and are somewhat naive about their role as faculty members. While they appreciate assistance and mentoring from more experienced faculty, Boice (1992) adds that older colleagues are not given high marks for their collegial support of junior faculty. In a study of the nature and extent of mentoring and other forms of career support among faculty at a public university, Sands (1991) found that mentoring was not prevalent. "Where occurring, it was mutually negotiated and was primarily between persons of the same sex . . . ." Richardson (1993) initiated a national study of two-year college faculty behaviors that contribute to educational equity. Among other findings, he found that faculty reported lower levels of involvement in mentoring and advisement, and campus climate activities.

Braskamp and Ory (1994) suggested that new faculty members and heads or chairs must "sit beside one another" to construct a faculty development plan. "Sitting beside" must not be intended to be a controlling device, but a communication device among faculty. Developing such a plan is best done early in the new faculty's career. The problem then, for both the assistant professor and the administrator, is how to best plan the induction period best to remove barriers and provide opportunities for the faculty member's success. In this study, the initial strategy was to employ team teaching as a mentoring technique. The two researchers/participants in the case were a newly hired, tenure-track assistant professor and a tenured department head.

Through the use of team teaching as a vehicle, mentoring was viewed as an opportunity for a junior faculty member and a department head to "sit beside one another" for the purpose of assisting the junior faculty in becoming socialized into the institution and to experience mentoring.

Team-teaching involves two or more instructors collaborating over the design and/or implementation and evaluation of the same course (Easterby-Smith and Olve, 1984). Research related to team-teaching in higher education has generally been limited to undergraduate survey courses such as psychology (Morlock, Gaeddert, McCormick, Merrens, Shaffer,& Zandi, 1988), and management education courses (Easterby-Smith and Olve, 1984). However, research literature

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on the assessment of the "...outcomes of faculty collaboration in teaching does not exist " (Austin & Baldwin, 1991, p.41). Faculty collaboration and socialization through mentoring contribute to learning, collegiality, and teaching effectiveness (Austin, 1990; Austin & Baldwin, 1991; Mezirow, 1991). The role of mentoring in socialization of newcomers into a new organization or occupation is widely accepted; what is needed is inquiry that addresses mentoring as a collaborative process that occurs during socialization.

A case study of instructors utilizing a team-teaching approach to instructing an HRD course can shed light on the extent to which this instructional methodology supports mentoring as a socialization technique. Research is needed on instructor's attitudes and perceptions of team-teaching in a graduate HRD course in order to analyze mentoring and socialization.

An examination of instructor's attitudes/perceptions toward team-teaching in a graduate Human Resource Development course had not been investigated. Attitudes and perceptions of instructors team-teaching a graduate HRD course was needed in order to qualify the elements or conditions that influence the theoretical construct of mentoring through socialization.

Theoretical Perspective

The theoretical framework for this study was based on a synthesis between mentoring and the theory of negotiated order. Mentoring has been defined by Kinlaw (1989) as a coaching conversation that may be initiated by the employee or the manager, and Ingham (1993) defined mentoring as the "oral transmission of secret knowledge -- information about how a particular institution really works . . . " resulting in information that permits employees to further their own success. According to Kinlaw (1989), typical outcomes of mentoring are: development of political savvy; sensitivity to an organizations's culture; personal networking; greater proactivity in managing one's career; commitment to the organization's goals and values; and sensitivity to the preferences of senior managers.

Through the use of team teaching as a vehicle, mentoring was viewed as an opportunity for a junior faculty member and a department head to "sit beside one another" for the purpose of assisting the junior faculty in becoming socialized into the institution and to experience the outcomes defined by Kinlaw.

The social context in which collaborative or mentored relationships were negotiated in this study is a critical dimension of the process of team-teaching. The theory of negotiated order characterizes mentoring as the result of self-conscious interaction of negotiation and re-negotiation among participants (Gray, 1989; Goffman, 1983). Negotiated order is based on social interaction between participants who are negotiating and re-negotiating their relationships.

In addition to the effect of gender (Cameron and Blackburn, 1981), the researchers became aware of the influence of status (Fennel and Sandefur, 1983), and socialization (Feldman, 1976; VanMaanen, 1975) on the mentoring process as the study progressed.

Purpose of the Study

The purpose of the case study was to answer several questions related to whether team teaching as a mentoring devise impacted or influenced faculty socialization. The study focused on the following questions:

1. Are experience and personality compatibility of instructors an issue in a course utilizing team-teaching methods ?
2. How does team-teaching affect an HRD graduate course faculty planning, implementation, and evaluation strategies ?
3. Does team-teaching an HRD graduate course contribute to mentoring, faculty collaboration, and socialization of new faculty ?
4. How do faculty gender and subordination issues affect team-teaching as a mentoring device ?

Research Methods

Participants were a newly hired un-tenured faculty member and a tenured department head. Both faculty instructors were participant observers and a non-participant observer was a graduate assistant from the same department.

The case study (the two HRD course instructors and learners) research design used mixed methods (Ragin,1987) and methods triangulation (Patton, 1990). Techniques (Merriam, 1988) included unstructured in-depth dialogues and observations by participant-observers and a non-participant observer as well as the collection of relevant documents and dialogue data from the class participants. Team teaching HRD served as the contextual condition thought to be highly pertinent to the content and topic of the study.

Open-ended de-briefing dialogues (Patton, 1990) were completed at the conclusion of classes held at University of Arkansas graduate education facilities and at various times during the course of the study. Each de-briefing dialogue was audio-tape recorded for data collection and analysis purposes. Additional dialogues were summarized from notes taken during conversations.

Observations were performed by both instructors during each class period. Additional observations of class sessions were done by a graduate student in order to balance possible observer bias on the part of the instructors. Post-observation debriefing sessions were held after each observation.

Procedures and Data Analysis. On-going dialogues and post-class debriefings (Spradley, 1980, Strauss & Corbin, 1990) were analyzed *in situ* as suggested by Lofland and Lofland (1984). Instructors discussed and analyzed responses in on-going dialogues held throughout the research using a grounded theory approach to initial data analysis (open, axial, and selective coding) to qualify and attempt to support theory. Learner data was obtained from interviews, observations, and informal dialogues held throughout the research. Data was triangulated during each debriefing session. Qualitative software was used to support qualitative data analysis. Data strategies suggested by Miles and Huberman (1994) and Wolcott (1994) were used to organize, communicate, and analyze qualitative data.

Findings

Initial perceptions of team-teaching by faculty were similar to responses heard from learners throughout the course, for example, one instructor remarked: "I thought I knew what I was getting into, but even with my experience with teams, I was still kind of intimidated at first...I'd never done it before" (pa-17), and early in the research an instructor added that "I felt somewhat unsure as to how the process would work in regard to 'control', however, since I trusted the team-teaching partner, I felt that we could share control without stepping on one another's egos" (pb-5). The newly hired faculty member reported some anxiety "because I was teaching with my boss I wanted to perform well, probably better than I would alone" (pa-32) and "It was a pretty stressful beginning for me, but it was also innovative and exciting to be doing research 'out of the block' in my first class" (pa-12).

In-process debriefing analyses revealed that faculty were conscience of the possible bias inherent in participant-observer research (Spradley, 1980); for example, one instructor said, "are we really doing what we're suppose to be doing, or is it artificial because we know what good team-teaching is suppose to look like ? Are we modeling for the sake of research or are we modeling good team-teaching practices cause it
works ?" (pa-21,22). Both faculty members indicated that the team-teaching process required them to plan and make team decisions which were "...sounder, in that they are made with more reflection than I [we] normally would have given them" (pb-32).

Analyses of debriefing data indicated that team-teaching an HRD graduate course contributed to faculty collaboration and socialization of new faculty. For example, "it became easier and easier to work in a team-teaching situation as the semester went along. In fact, I came to look forward to checking with you [the partner] rather than making arbitrary decisions" (pb-29). New faculty

socialization was enhanced through the mentoring affiliation which, according to Ostroff & Kozlowski (1993), plays a significant role in professional career development. The senior faculty instructor reported that "I noticed during the semester that many of the students who had originally seemed apprehensive about pleasing a 'new' professor seemed to warm up to him a great deal and to realize that he had much to offer...it gave me an opportunity to mentor a new professor in a way that I otherwise would not have been able to do" (pb-35,40).

Issues concerning faculty gender and subordination were initially ambiguous. One faculty member reported that gender and subordination issues were "not as overt as I thought they would be; I guess I'm just more aware of them being new faculty" (pa-111). Gender was not overtly discussed during the debriefing sessions and although subordination was discussed, it was perceived by instructors as "insignificant". Content analysis of data indicated that team-teaching faculty generally did not consider rank or gender as an issue.

Upon completion of the team-teaching class, the researchers both reported a sense of loss in that the collegiality formed during the course was abruptly ended. In teaching courses individually the following semester, the faculty members reported that when faced with challenges or uncertainties concerning their classes, they would have enjoyed consulting their "teaching partner." However, both researchers found themselves forced back into traditional roles. The amount of time and effort required to seek the other out and relate the situation seemed to discourage continued collaboration. Because there was no shared understanding about the current class and students, the collaborative relationship was not pursued. The junior faculty member reported that lack of time was a deterrent because he was responsible for teaching two classes on his own, developing his research agenda, and building relationships with area corporations. The vehicle for mentoring, i.e., team teaching, was no longer in place. In addition, because there were other new faculty members in the department, the department head felt forced back into the role of administrator to avoid seeming to favor one faculty member over others. In addition, the possibility that continued mentoring could encourage unnecessary dependence was considered.

Non-participant observer perceptions. Observation data analysis from observations approximately one-third and two-thirds through the semester indicated that learners and faculty were interacting in a positive and "facilitative" manner. Observations suggested that participants treated each facilitator as equal during in-class interactions. During observations, the incumbent faculty member noted that a few participants with past history with him/her as an instructor tended to address him/her slightly more than the other instructor early in the semester; however, during later observation this focus was not observed. Observations also indicated that the instructors seemed to get along and genuinely appreciated each others' varied backgrounds and experiences.

Discussion and Research Implications

Results are deductive and sought to discover and support elements of mentoring and faculty collaboration in team teaching. Therefore, results are applicable only to the context of the study and may not transfer to different contexts. To address possible bias this study used detailed field notes, "reflections on their [our] own subjectivity", and worked in a team as additional checks on bias as recommended by Bogdan and Biklen (1982, p.42).

Qualitative analyses provided several insights into mentoring and the impact of mentoring on faculty collaboration and socialization. This study suggests that initial attitudes toward team teaching in graduate level HRD appeared to be unstable; that is, initial perceptions and attitudes of all participants, including faculty were noticeably affected by organizational issues such as evaluation, instructor control, authority, and accessibility.

The operational structure of faculty collaboration in this study served to enhance performance. Clear organizational arrangements enabled members to work within established boundaries in an independent, creative, and productive manner (Austin and Baldwin, 1991; Fennell and Sandefur, 1983). The social and political framework within which the faculty worked prescribed a consensus between them.

Course preparation time was increased compared to prior planning experiences; i.e., time was

spent early in course revision and planning to take advantage of each instructor's individual strengths and expertise. This extra time together tended to enhance faculty collaboration. Additional collaboration was afforded through weekly faculty meetings and debriefing sessions required time to discuss and reach agreement on revisions of delivery, content, and class activities. Faculty agreed that although collaboration increased planning time, it generated better results in their ability to deliver higher quality instruction and provide in-process (formative) evaluations.

Evaluation and grading could have had possible serious implications had it not been for faculty mentoring. The instructors collaborated at length with learners and each other on evaluation issues. At mid-semester an unpopular decision was made by faculty concerning a particular evaluation issue. Collaboration helped to provide resolution to the issue. One instructor said that "it was easier to stand by our decision with two persons than it would have been with one making the decision. I felt our position was strengthened by the fact that there were two of us" (pb-81-82).

Communication as a mentoring tool was expanded through requirements for faculty discussion, negotiation, and compromise. Divergent views and inquiry were encouraged through collaboration and mentoring, thus establishing an environment conducive to dialogue, and "dialogue can occur only when a group of people see each other as colleagues" (Senge, 1990, p. 245). A great deal of dialogue is required for successful collaboration (Austin and Baldwin, 1991). An unambiguous organizational structure e.g. formal higher education, helped to shape and maintain a process of communication that supported faculty interaction and mentoring.

Faculty collaboration was enhanced through mentoring. Instructional skills, cognitive development, collegiality, and dialogue were promoted by this collaboration. An additional benefit was to encourage reflective practice about teaching among faculty, an activity typically not a common component of university culture (Austin & Baldwin, 1991). Enhanced dialogue provided faculty with insightful criticisms and exposure to alternative teaching and personality styles necessary to reframe thinking and create an awareness of the processes of thoughts and feelings that create the learning experience. As participant-observers, faculty felt that dialogue as a validation or grounding (Habermas, 1984) of learning was critical in improving on-going facilitation and instruction, in formative evaluation, and in socialization. Improved collegiality as a component of socialization may serve to enhance the academic culture especially within the HRD program. Austin added that collegiality is a "bedrock of the academic profession" and that it is the ideal framework for faculty interaction (1990, p. 62).

Socialization of new faculty may be reinforced by mentoring. Stage models of socialization indicate that during the first few months on the job, new employees seek to learn about the new setting by relying on interpersonal sources such as co-workers and mentors (Feldman, 1976; VanMaanen, 1976; Schein, 1988). This study supports the notion that team teaching greatly enhances and accelerates the socialization of new faculty not only by interpersonal sources but through the noninterpersonal source of observation of others "in salient situations" (Ostroff & Kozlowski, 1992, p. 851).

Mentoring, like collaborative instruction and research, fits within the culture of the academic profession and the discipline of human resource development. Teaching that encourages mentoring and interactive modes of instruction promotes refined intellectual community (Austin & Baldwin, 1991) and aids in the identity of HRD as a profession. Additionally, through occupational socialization, it promotes individual identification with the academic profession as well as the HRD discipline. Through socialization and collaboration mentoring may serve to (a) establish new behaviors and shared assumptions, (b) preserve the organization's integrity and autonomy, differentiating itself from the environment and other groups, and providing itself with an identity (Schein, 1988).

Individual philosophies around instructional methods and other principles of adult learning had an affect on faculty collaboration, socialization, and the success of mentoring in this study. This conclusion supports Peters and Jarvis' (1991) supposition that the relationship between teachers is more complex when philosophical viewpoints differ. Since philosophies include social and political dimensions, instructors with diverse social and political viewpoints should critically examine efforts to collaborate and mentor.

Female learners felt that a focus on societal issues was encouraged which supports the notion that "women hold a distinctly different worldview from men" (Cox, 1994, p. 106). Gender and subordination issues had no overt influence on faculty mentoring and socialization; however, they did play a surreptitious role in facilitating collaboration. Status imposed an intrinsic authority and decision making arrangement (Fox and Faver, 1982) that served as a mediating force when problems over evaluation strategies proved difficult to solve. Although gender was an insignificant issue in this study, it has been reported that women and men approach mentoring and collaborative relationships differently (Austin & Baldwin, 1991). Even though these differences were not brought to light as a result of this study, the fact that a faculty member was subordinate and of different gender should not be ignored as possible ambiguous variables influencing faculty collaboration and socialization. The new faculty member added that "I'm not so sure I would've had the same experience with a male faculty member " (pa-61).

Research implications. Every effort was made to make this study valid and to enhance credibility through multiple research methods and establishing trustworthiness, however this research was not without limitations. Much of what was learned in this study was dependent on the interaction between investigator(s) and the context of the study (Lincoln and Guba, 1985, p. 208).

Because only one graduate level HRD class was studied, future research should be conducted that examines faculty collaboration and mentoring in a variety of adult learning environments including undergraduate and continuing education classes. Team teaching within private and public, large and small, and research and teaching institutions all need to be examined.

Future research is also needed to investigate socialization as a learning strategy for newcomer faculty. For example, research is needed on how newcomer faculty use a collaborative relationship to negotiate learning (a) new tasks, (b) role boundaries and behaviors, (c) group interaction, and (d) organizational demands. Moreover, measures of organizational impact are needed. The influence that team teaching and mentoring has on organizational climate and culture could serve to establish faculty mentoring as a mechanism for attracting, selecting, and socializing new members.

More research is needed on collaboration and mentoring of faculty of different gender as well as differences in status. Few researchers have examined the experiences with collaboration or mentoring of academic women (Austin & Baldwin, 1991, p.74), especially women in high status positions. Finally, additional qualitative studies are needed concerning team teaching and faculty mentoring. A variety of methodologies such as naturalistic inquiry, educational ethnography, and case study should be pursued to provide research which "gets beyond initial conceptions" and provides human resource development research with a quality of "undeniability" (Miles and Huberman, 1994, p. 1) and truth.

Summary

Findings of this study suggest that faculty mentoring, collaboration and socialization are supported and enhanced by team teaching. This research also uncovered several potential benefits of team teaching as a mentoring process. First, as a socializing activity, team teaching may positively influence newcomer socialization and thus affect the culture and climate of the organization. Second, the results of faculty mentoring may enhance development of political savvy; sensitivity to an organizations's culture; personal networking; greater proactivity in managing one's career; commitment to the organization's goals and values; and sensitivity to the preferences of senior managers. Third, the interactive nature of team teaching may be a potential source of intellectual stimulation and cognitive development for learners as well as faculty. Finally, team teaching reflects the longing for teamwork and team learning in organizations and may serve as a model of the potential of collective learning.

References

Austin, A.E. (1990). Faculty cultures, faculty values. In Tierney, W.G. (Ed.), Assessing academic climate and cultures. *New Directions for Institutional Research, 18*(4), 61-74.

Austin, A.E., & Baldwin, R.G. (1991). *Faculty collaboration: Enhancing the quality of scholarship and teaching*. (ASHE-ERIC Higher Education Report No. 7). Washington, DC: The George Washington University, School of Education and Human Development.

Bogdan, R., & Biklen, S.K. (1982). *Qualitative research for education.* Boston: Allyn and Bacon.

Boice, R. (1992). Lessons learned about mentoring. In M.D. Sorcinelli and A. E. Austin (eds) Developing new and junior faculty. *New Directions for Teaching and Learning, 50*, San Francisco: Jossey-Bass.

Braskamp, L. & Ory, J. (1994). *Assessing faculty work.* San Francisco: Jossey-Bass.

Cameron, S.W., & Blackburn, R.T. (1981). Sponsorship and academic career success. *Journal of Higher Education, 52*, 369-377.

Cox, T.H. (1994). *Cultural diversity in organizations: Theory, research and practice.* San Francisco: Berrett-Koehler.

Easterby-Smith, M., & Olve, N.G. (1984). Team-teaching: Making management education more student-centered? *Management Education and Development, 15*, 221-236.

Feldman, D.C. (1976). A contingency theory of socialization. *Administrative Science Quarterly, 21*, 433-452.

Fennel, M.L., & Sandefur, G.D. (1983). Structural clarity of interdisciplinary teams: A research note. *Journal of Applied Behavioral Science, 19*, 193-202.

Fox, M.F., & Faver, C.A. (1982). The process of collaboration in scholarly research. *Scholarly Publishing, 13*, 327-339.

Goffman, E. (1983). The interaction order. *American Sociological Review, 48*, 1-17.

Gray, B. (1989). *Collaborating: Finding common ground for multiparty problems.* San Francisco: Jossey Bass.

Habermas, J. (1984). *The theory of communicative action. Vol. 1: Reason and the rationalization of society.* Boston: Beacon Press.

Ingham, Z. (1993) *Secret life of a new faculty member.* Paper presented at the Annual Meeting of the Conference on College Composition and Communication (44th). San Diego, CA: March 31-April 3, 1993.

Kinlaw, D.C. (1989). *Coaching for commitment: Managerial strategies for obtaining superior performance.* Pfeiffer & Co., San Diego: CA: University Associates, Inc.

Lincoln, Y.S. & Guba, E.G. (1985). *Naturalistic inquiry.* Beverly Hills, CA: Sage.

Lofland, J. & Lofland, L.H. (1984). *Analyzing social settings: A guide to qualitative observation and analysis (2nd ed.).* Belmont, CA: Wadsworth.

Merriam, S.B. (1988). *Case study research in education: A qualitative approach.* San Francisco: Jossey Bass.

Mezirow, J. (1991). *Transformative dimensions of adult development*. San Francisco: Jossey Bass.

Miles, M.B. & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage.

Morlock, H.C., Gaeddert, W.P., McCormick, N.B., Merrens, M.R., Shaffer, L.C., & Zandi, T. (1988). A rotational format for team teaching introductory psychology. *Teaching of Psychology, 15*, 144-145.

Ostroff, C., & Kozlowski, S.W. (1992). Organizational socialization as a learning process: The role of information acquisition. *Personnel Psychology, 45*, 849-874.

Ostroff, C., & Kozlowski, S.W. (1993). The role of mentoring in the information gathering processes of newcomers during early organizational socialization. *Journal of Vocational Behavior, 42*, 170-183.

Patton, M.Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage Publications.

Evaluation Research for the Development of Effective Practice in the Video-Teleconferencing Distance Education Human Resource Development Classroom

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A preliminary report is presented on the evaluation research of graduate-level classes in human resource development (HRD), delivered through video-teleconference distance education (VTDE), in the hope that this will inspire instructors to transform their own VTDE class settings into laboratories of effective practice. The authors discuss the background and approach to the course, describe the evaluation research strategy, give examples from the data, and explain how some effective practices for VTDE were developed.

Compressed video technology is revolutionizing distance education strategies. Where once expensive up and down links to orbiting satellites were required for two-way televised communication, compressed video technology has made every classroom connected to a T-1 digital telephone line a potential site for video-teleconferencing distance education (VTDE). Earlier, Wedemeyer (1981) commented:

> What is different about learning via technology today is the scope of learning facilitated by technology, the altered roles of teachers and learners, the changed environment for learning necessitated by technology, and the sophistication of the processes used in developing instruction that will be communicated by technology. (p. 111)

At Northern Illinois University (NIU) in DeKalb, Illinois, among the first courses to employ VTDE was a graduate-level course in human resource development (HRD). The course was taught simultaneously in the 1995 Spring and Fall semesters at two sites: on the NIU campus and at the College of DuPage in Glen Ellyn, Illinois. At NIU, HRD is an inter-professional field of study. Students who major in it initiate their study through adult education, counseling, or instructional technology. The pollination of ideas that occurs among students in these fields is enhanced by the addition of students from business, public administration, and other departments. The classes were anything but homogeneous. They consisted of American and foreign nationals, and part-time and full-time students at the master's and doctoral levels. There were students with varying amounts of HRD experience, ranging from little or none to an impressive record as HRD directors or trainers in business, industry, government, and the voluntary sector.

This VTDE course had a two-fold purpose: (1) To provide an overview of theory, research, and practice relating to individual development (training), career development (education), and organization development (change); (2) To acquaint students with the potential and complexities of the VTDE classroom, so that they can employ it confidently and intelligently as a delivery system in their own work settings. In effect, the classroom becomes a laboratory in which students study HRD while simultaneously grasping the elements and operation of VTDE classrooms. The behaviors of the instructor, the students, and the site coordinators combined to serve as a model for students. The task of the site coordinators was to prepare for classes by checking the quality of the VTDE transmission for problems such as distorted or missing visuals,

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weak or echoing audio, etc., and to operate the system. When a site coordinator operated alone because the instructor is at the other site, the coordinator has the added responsibility for arranging discussion groups, responding to students' questions, and collecting their papers and journals.

In this classroom/laboratory, students receive a book of readings to supplement the textbook, paper copies of transparencies on which students can make notes during class, study questions that serve as advance organizers for the next week's class, and case studies and simulations designed to relate theory and research to practice. Selected HRD experts either attended a class at one site or interacted by telephone from their homes or offices with classes at both sites. One specially interesting encounter featured an interview with the textbook's author, Dr. Jerry Gilley, based on questions submitted to him beforehand. During this stimulating two-hour dialogue, new questions were raised that challenged some of his assumptions and conclusions. In this process of clarification, which was marked by openness and candor, both author and students gained new insights into the HRD field.

Obviously, this laboratory experience at both sites involved an immense amount of preparation on the instructor's part, including mastery of the VTDE system and its operation. According to Gehlauf, Shatz, and Frye (1991):

> Instructors do not want to be told how to teach; rather, they want to get a feel for the equipment and the specific technique they need to use to be more effective in interactive television classrooms. To facilitate this type of training, the technical system must be as "user friendly" as possible, so that the technology is transparent to the educational process. (p. 26)

As for the design of the program, some elements of the model developed by Blaney (1974) for curriculum formation proved valuable. The model presents three modes of curriculum formation: institutional, shared membership, and individual. The institutional mode focuses on content as determined by the instructor, the shared membership mode focuses on learner-centered and problem-centered concerns, and the individual mode focuses on the self-directed learner.

The institutional mode influenced the choice of the course content, as reflected in the course outline, the mini-lectures given to classes, and the final examination. The shared membership mode influenced the development of collaborative (group) activities, such as discussions of study questions presented as advance organizers, case studies, simulations, panels based on field trip reports, and the exchange of ideas with selected HRD experts in both Canada and the United States. From these activities emerged mutual trust and teamwork at both sites, exemplifying some aspects of the team learning process so important in today's organizations. The self-directed mode found expression in the students' journals, which consisted of their reflections on content and process, often interspersed with practical applications of the material learned. Those students having a background of HRD experience performed as reflective practitioners who could apply their new learning to "real" situations.

In the design of content and process, it would be easy to settle into a behavioral, structured approach to teaching and learning in a VTDE classroom. To avoid this possibility, the instructor must develop a credo, or personal philosophy, based firmly on the conditions of adult learning. He or she is, after all, dealing with adults who would almost certainly reject the notion of watching a three-hour television lecture--hence the need for multiple activities as described above. One important condition of adult learning is the creation of a climate of trust that will allay the anxieties of students confronting an unfamiliar delivery system. On the instructor's part, a climate of trust involves cherishing each student's individuality--his or her special needs, interests, and rich life experiences. Niemi (1992) commented as follows:

> I encourage their growth by establishing a climate of trust in which students feel free to express their views, to share ideas from their diverse backgrounds, and to challenge each other and me. (pp. 14-15)

One initial strategy, employed at the first class session, helped to create a friendly, relaxed atmosphere by forming dyads, with each student introducing his or her new friend to the two classes via a two-minute television spot. Another benefit of this experience is that it provided the students with an early, natural opportunity to familiarize themselves with the delivery system. A second strategy for creating a friendly climate between the two classes was to bring all of the students together, later in the course, for a dinner meeting with a speaker.

Another condition of adult learning conducive to the success of a VTDE classroom is the background of life and work experience that learners bring with them. Knowles pointed out the value of such experience as follows:

> Because adults are themselves richer resources for learning than is true for children, greater emphasis can be placed on techniques that tap the experience of adult learners, such as group discussion, the case study, the critical incident process, simulation exercises, role-playing, skill practice exercises, field projects.... (pp. 44-45)

To the VTDE course under discussion, the students brought not only a rich background of life and work experience, but some of them also had worked in instructional design, media systems, and other HRD activities.

A third important condition of adult learning is that learners must enjoy a sense of progress toward achieving the goals of the course. This sense of progress became evident in the students' bi-weekly journals, which were read by the instructor and returned to them with his comments. These journals, together with evaluation instruments completed by the students and site coordinators, formed the basis for evaluating the course.

Evaluation Research

Effective instruction is the goal in every classroom. As stated previously, modeling effective instruction in VTDE classrooms was specially important in that many students either had implemented, or soon would be called upon to implement VTDE instruction by their organizations. Modeling effective evaluation procedures was also an important classroom goal.

Research on distance education settings has shown that participant evaluation is consistently among the best indicators of effectiveness (Schlosser & Anderson, 1994; Sachs, 1993; Verduin & Clark, 1991). The authors believe that this evaluation is even more important in a graduate classroom, where many students occupy professional positions. The authors' goals for the evaluation process itself were twofold: (1) to supply formative data to the instructor and site coordinators for the ongoing improvement of instruction, and summative data on the VTDE classroom as basis planning future VTDE courses; (2) to supply students with an opportunity to participate in the evaluation process and to reflect on their own learning experiences. Thus, the VTDE classroom served as a laboratory for developing effective practice. Two research questions guided the date collection. The first research questions was: "What was the quality of the VTDE experience?" The second research question was: "What could constitute an effective practice standard for VTDE?"

Data collection consistent with evaluation research methodology (Isaac & Michael, 1987; Cooley & Lohnes, 1976) was included as an integral part of the course structure. To meet the goals that had been established for the evaluation process, it was necessary to collect data from

multiple sources. These sources included the following: a written record of class activities, with special attention to problems directly related to the technology of VTDE delivery; declarative and interrogative journal entries provided in be-weekly students' journals; a summative evaluation instrument with narrative responses from the instructor and the site coordinators; a summative reflection paper by the site coordinators; a summative evaluation instrument with Likert scale responses for the students, identical to instruments distributed by the department to other graduate classes; and a summative evaluation instrument with both Likert scale and narrative responses for the students, directly addressing the quality of their VTDE experience.

With regard to Research Question #1, the data were analyzed with reference to their source, and then triangulated across sources by both theme (e.g. instructor effectiveness) and by particular events responded to (e.g. failure of audio quality during sessions). With regard to research question #2, subsequent research issues were identified, employing the triangulated data analysis (e.g. "How can we improve the instructor's audio quality at the remote site?"). Solutions were proposed, implemented in the classroom, and evaluated.

The evaluation research data, because of their multi-source origin, provided a rich view of a VTDE classroom, and the analysis should prove useful for anyone interested in distance education.

For the purpose of this paper, a preliminary report, the authors limited their scope to providing examples from the data rather than a complete analysis for research question #1; and present a brief discussion of how some standards were developed with regard to research question #2. The authors expect to make a more complete presentation of the data and a thorough analysis in a future monograph.

Examples From the Data Collection

Entries in Students' Journals - Spring, 1995

1. I was somewhat hesitant to register for this course because of the method of delivery. In fact, I did register for this class a few years ago when the method of instruction was audio-conferencing. I attended the first class, which was held in a conference room at the College of DuPage, and withdrew the next day. It was hard to concentrate on audio alone. Since I didn't need the class for a degree, and I was just taking it for my own benefit, I wanted a traditional classroom. When I registered this past January, I still didn't need this class, but I wanted to continue learning (especially about HRD), and CoD was the perfect location for me. When I arrived on the first day and discovered that the classroom was so attractive, and that we were using two TV monitors, with microphones all over, I was relieved. Perhaps this experience would work. I was very pleased to learn that I could see and hear the Professor, and he could see and hear us. This course is just about over now, and I am extremely glad that I enrolled and stayed in the class. Distance education is becoming a very important method of instruction in the western suburbs west of Chicago and at CoD, where I am employed. I feel so lucky to have been a part of a new and emerging technology.

2. I recently thought about keeping track of the number of responses from the individual classroom participants when Dr. Niemi was physically present at the site, and when he was the on-air presenter. Since we have recently had visitors [guest presenters], I chose not to track the number of participants' questions. However, if I would take a distance learning class in the near future I would consider doing this. As I look back on the CoD [College of DuPage, the off-campus site] experience during this semester, I believe that student interaction was higher when Dr. Niemi was physically present.

3. I am sure that both of you experienced some frustration with the technology system in teaching this class, but both of you continued each night to stay focused and do an excellent job. Watching your progress through many technology problems has helped me to do the same. I think that you have both shown all of us that adults need to possess a philosophy that allows them to continue learning, cherish other learners, and update skills with all new advances in the field, such as changes in technology. It may be difficult--but it is worth the results!

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4. As with others who have had to come into the technology, I felt a bit of empathy for Mr. R. [guest], especially when he was dealing with the video on jazz. As a student throughout the class, I have learned to accept the hurdles; however, when I detect the frustration of the speakers, I feel a bit sorry for them and wish that it ran smoother. On the positive side, the instructor in me is really learning a lot by watching the different professionals react and cope with the physical potholes and emotional hurdles associated with the technology.

5. On the plus side, distance education provided me with a technological experience in which I feel lucky to have participated. I work in the ITD Center for Adult Education at Waubonsee Community College, where we are in the process of initializing equipment setup for a distance education program. I'm to be in charge of the program, which I feel to be tremendous opportunity. The opportunity to participate in this class has heightened my awareness of the complexity of what we hope to accomplish. I can also see other, less personal reasons for viewing distance education in a positive light. It provided me with an opportunity to take a class which was closer to my home, saving time. It provided me the opportunity to meet another type of student. Every student in this class was employed in the "real" world. Given the relatively high number of students in both classes, if the class had not been offered via distance education, it might not have been possible for all of us to attend the class.

Entries in Students' Journals - Fall, 1995

1. Having already completed six of the fourteen classes in this program, I find that I'm becoming much more comfortable with distance learning technology. I still find, however, that I am a bit inhibited to speak up in class, and wish that the ceiling-mounted microphones at CoD would pick up our voices better, so that we wouldn't have to pass the mike. The technical quality of our two-way voice transmission was noticeably better on October 19th, and it seemed to have a positive effect on our cross-campus dialogue.

2. I wanted to comment this week about class interaction, and give some feedback about my experiences thus far. When I first decided to take a course, I wondered how the class interaction would be. I have really enjoyed our small group activities and the chance to discuss, brainstorm, and share with small groups. I have also been fortunate to be in different groups with different people in the course. Every week I am continually amazed at the diverse backgrounds and experiences of my classmates. I have learned a great deal from this interaction in small groups. In addition, I have taken the opportunity on our class breaks to talk one-on-one with some of my classmates. It has been interesting to visit about how the material relates to our current positions, and just to hear about other people's career issues. These small group activities and the interaction with individuals one-on-one have been an added bonus to this HRD course, and I wanted to share that feedback.

3. I think that, because my philosophy places me in these categories as a teacher, I have some difficulties as a learner with the instructional use of television. I think much is learned, both of course content and self, in the interactions in the classroom. With half the class at the remote setting, it is difficult to contextualize the comments and discussions emanating from CoD. I tend to be a "people-watcher," assessing body language along with spoken words. It is difficult to get the whole picture of the person when the individual is reduced to a television image. While I don't think that the level of material is reduced, I do feel that my natural means of processing discussion is somewhat affected.

4. Next, I would like to comment on the distance learning program we are involved in. I have never been involved in such a technically advanced classroom situation, and I feel that it may have tremendous benefits both to the staff and the students. However, I feel that too much time is wasted in the beginning of each session on technical problems. Please don't misunderstand me, I support the use of this system. I would like, however, to see the bugs worked out of it prior to the start of class time.

Site Coordinator's Reaction Paper, Fall, 1995. This dimension reflects empathy, accessibility, and friendliness. For example, I often joined other students during break time, informally addressing questions relating to content or class assignments. Many students would

ask me to convey their questions or concerns to the instructor. Several times students called me at home to clarify assignments or information presented. I strongly feel that, in order to diminish student anxiety and reluctance to inquiry, specific time needs to be dedicated each class session to address student questions and concerns. Students are hesitant to interrupt the instructor with questions, especially if he/she is at a distant site. An argument can be made that all site coordinators, students, and instructors have access to e-mail. In this way, students can maintain an informal dialogue among each other and query the instructor or site coordinator when necessary. In order to practice good andragogy, the site coordinator needs to understand and apply adult learning principles. Adults have a need to learn, and for such learning to be meaningful, learning must be perceived as relevant. Site coordinators have the dual responsibility of empathizing with student concerns while linking content to student need. The site coordinator plays a critical role in supporting a "spirit of mutuality" and friendliness. Adults require a supportive atmosphere when learning. This is an especially important consideration in distance education. I strongly believe that, in order to create a "spirit of mutuality," site coordinators need to work in close harmony with instructors, jointly developing communication and instructional systems focused towards a positive learning culture. Friendliness is the result of working in collaboration with the instructor, as well as having respect and empathy for the adult learner.

Departmental Course Summative Student Evaluations

Evaluation of VTDE Course and Instructor - Spring, 1995. Course effectiveness question: "How would you rate the overall effectiveness of this course?" (five-point Likert scale response). NIU site: n=14; mean=4.36; standard deviation=0.81. CoD site: n=17; mean-4.53; standard deviation=0.61.

Instructor effectiveness question: "How would you rate the overall effectiveness of this instructor?" (five-point Likert scale response). NIU site: n=14; mean=4.50; standard deviation=0.73. CoD site: n=17; mean=-4.50; standard deviation=0.71.

Distance Education Delivery Summative Student Evaluations

This was my first experience of video-teleconferenced instruction (yes - 92%)

This was my first semester of graduate study (yes - 19%)

The on-site staff were helpful (strongly agree or agree = 96%)

The teleconference effectively made up for the absence of the instructor from my site (strongly agree or agree = 69%)

I believe that there was more student interaction at my site when the instructor was present (strongly agree or agree = 88%)

The instructor teaching style, employed through this teleconference medium, facilitated my learning (strongly agree or agree = 92%)

Compared to a regular class, I felt as comfortable learning, using distance education (strongly agree or agree = 73%)

I reacted positively to seeing myself on camera (strongly agree or agree = 58%)

Compared to a regular class, my class participation experience remained the same (strongly agree or agree - 48%)

I found that the technical problems that occasionally occurred disrupted my overall learning experience in the class (strongly agree or agree = 60%)

Overall, this was a positive learning experience (strongly agree or agree = 93%)

Establishing Standards of Effective Practice

Technical difficulties can range from mere annoyances to complete failure of the system; any such difficulty, however, calls attention to itself and thereby detracts from the learning experience. In the event that the whole system, audio and video, failed, each site was equipped by design with a telephone conference call unit to use as back-up. Problems with the video system were the simplest for which to plan because it was a case of all or nothing. If the video failed, the classes would continue on audio-conferencing. If the video encountered a freezing or a tiling problem, it was recognized and apologized for, and classes continued.

Standards for video were established by suggestion and by trial and error. Students commented almost immediately on their discomfort at viewing themselves on the monitor. Some requested that the various handouts be shown on the monitor for ready reference. Other students suggested that they preferred to see the instructor continuously during a lecture/discussion. A solution was to focus one camera on the instructor while the camera at the other site would focus on the handouts.

Among the most troublesome technical problems was the audio interaction. Both class record and students' bi-weekly journals took note of it. It was apparent in the first semester of VTDE delivery that there was not one audio problem, but several.

One problem was overcome by establishing the proper gain on the microphones and the proper volume on the speakers. Another problem was that the settings established by testing before the classes began were inadequate, once the rooms were full of people and background noise. The new settings were quickly determined by trial and error. A third problem was the lack of clarity in the instructor's audio. The audio units would transmit from both sites at once, so the site without the instructor would go on mute while a lecture proceeded, this action did improve audio quality overall, but clarity remained a problem. The microphones would pick up any sound at the site from which the instructor was transmitting. As a solution, a wireless microphone was placed on the instructor and the result was a minimizing of distracting background sounds, but annoying tendency to "clip" the beginning of sentences remained. This problem was solved by once again adjusting the gain control at the bridge to adapt to the now stronger volume of the wireless microphone.

Other audio problems arose from occasional system failure. In this case, the audio conference back-up was employed and classes continued. In addition, a conference bridge service that had been used in the past for audio-conferencing was available; this proved very useful when the first guest speaker was unsuccessful in transmitting through the teleconference bridge. The audio-conference pods once again proved their worth by allowing the guest speaker, who was on the telephone from a hotel, to continue his presentation. The authors recommend that all VTDE classrooms be equipped with wireless microphones for the instructor and that site coordinators be instructed in effective use of the mute function.

A final audio problem relates to differing timbres of male and female voices. The authors speculate that this difference might have implications for the use of desk-top (used at NIU) as opposed to ceiling-mounted microphones (used at CoD). As in every emerging field, VTDE has no shortage of opportunities for research into effective practice.

By presenting this paper at AHRD, the authors hope to encourage others who teach HRD to explore the potential VTDE delivery, and to suggest to active users of VTDE to transform their classrooms into laboratories. Finally, by sharing these results in this forum, it may be possible to build a body of standards for the effective use of VTDE in HRD classrooms.

References

Blaney, J. (1974). Program development and curricular authority. In J. Blaney, J. Housego, & G. McIntosh (Eds.), Program development in education, (pp. 20-21). Vancouver, B.C.: University of British Columbia.

Cooley, W. & Lohnes, P. (1976). Evaluation research in education. New York: Wiley.

Gehlauf, A., Shatz, M., & Frye, T. (1991). Faculty perceptions of interactive instructional strategies: Implications for training. The American Journal of Distance Education, 5(3) 20-28.

Isaac, S. & Michael, W. (1987). Handbook in research and evaluation, 2nd ed. San Diego: Edits.

Knowles, M. (1977). The modern practice of adult education: Andragogy versus pedagogy. New York: Association Press.

Niemi, J. (Fall, 1992). My educational philosophy and teaching goals. NIU Faculty Bulletin, pp. 14-17.

Sachs, S. (1993). Supporting compressed video. In B. Hakes, S. Sachs, C. Box, & J. Cochenour (Eds.) Compressed video: Operations and applications (pp. 180-198). Washington, DC: Association for Educational Communications and Technology.

Schlosser, C. & Anderson, M. (1994). Distance education: Review of the literature. Washington, DC: Association for Educational Communications and Technology.

Verduin, J. & Clark, T. (1991). Distance education: The foundation for effective practice. San Francisco: Jossey-Bass.

Wedemeyer, C. (1981). Learning at the back door: Reflections on non-traditional learning in the lifespan. Madison: The University of Wisconsin Press.